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ABSTRACT

A review is presented of findings emerging from the International Council for Educational Development assessment of the world educational crisis. The assessment was made of education in both developed and developing countries and was geared toward finding the future status of education in the 1980s and the 1990s. An analysis is made of basic trends that are shaping education's future. Fundamental to many problems facing educators is a rapid growth in human learning needs. A great increase in the number of learners in the developing nations produces pressure to expand enrollments, while developed nations, despite low population growth, are experiencing increases in learning needs, especially on the part of older youths and adults. Exacerbating the problem of providing for larger educational demands are the factors of tightened economies, increasing bureaucratization and politicalization of education systems, deteriorating employment markets, and a weakening of international cooperation in the field of education. These basic trends are seen as having far-reaching future implications for all levels and types of education throughout the world. Within this broad context, an examination is made of six critical issues facing higher education. These issues are identified as: (1) adjustment to changing demands in developed and developing countries; (2) fading employment prospects for graduates; (3) a growing financial squeeze in all nations; (4) educational inequalities for minority groups and the economically deprived; (5) problems in planning, management, and governance; and (6) barriers to international and intercultural cooperation and understanding. (JD)

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FUTURE CRITICAL WORLD ISSUES IN EDUCATION:

A Provisional Report of Findings

Philip H. Coombs

U.S. DEPARTMENT OF EDUCATION
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A Request to Readers

Readers are requested to send comments and suggestions on this provisional report to:

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INTRODUCTION

More than a decade has gone by since the international education community was jolted from its euphoria by stern warnings of a gathering world educational crisis.* It was characterized as a crisis of growing maladjustment, taking many different forms, between inherited educational systems and the rapidly changing world around them; and it was expected to grow steadily worse in the absence of strong corrective measures, including radical changes in conventional educational thinking, structures, and practices.

Two years ago, with the encouragement and assistance of various educational leaders and

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*The warnings came from an unusual international educational conference at Williamsburg, Virginia (October 1967) and were soon reinforced by a book--The World Educational Crisis: A Systems Analysis (Oxford University Press, 1968)--written by the present author while he was serving as director of UNESCO's International Institute for Educational Planning in Paris.

organizations, the International Council for Educational Development embarked on a fresh reassessment of the crisis to determine not only what had happened to it during the 1970s but, more important, to try to identify critical issues and opportunities that are likely to face education around the world in the 1980s and 1990s.

It soon became clear that the earlier warnings had not been a false alarm, that the educational crisis had indeed intensified and acquired additional dimensions in the intervening years. At the same time, there was encouraging evidence of progress, though by no means enough to offset the powerful crisis forces still at work.

The purpose of this paper is to provide a preview of some of the main findings emerging from this ICED study in order to elicit useful criticisms and suggestions that will be helpful in drafting the final report.

Three qualifications should be noted at the outset. First, although the overall ICED study looks at all levels and types of education, both formal and nonformal, Part II of the present paper, purely by happenstance, pays particular attention to six critical future issues of higher education.* As Part

*The happenstance is that the paper had its origin in a presentation made to a conference on higher education, organized by NUFFIC (The Netherlands Universities Foundation for International Cooperation) in The Hague in June 1980. Dr. Leo Dubbeldam of CESO joined me in that earlier presentation, but since it was not feasible for us to work together on this enlarged and much revised version, I must assume full personal responsibility for the contents.

I makes clear, however, most of these same issues and the forces underlying them have equally important implications for all levels and types of education. Second, for brevity's sake the findings are stated here only in general form, stripped of detailed supporting evidence and the many qualifications they warrant. Obviously these generalizations do not fit all countries equally because of the many differences among them. Nevertheless, they do apply in significant measure to virtually all of them since no nation's educational situation can be immune to the powerful cross-cutting changes and forces that are loose in the world today. Finally, although this paper reports some very disturbing findings, it should not be seen as a counsel of despair. On the contrary, it is written in the conviction that when intelligent human beings and societies are made acutely aware of critical problems facing them in the future, they are much more likely to mobilize their ingenuity and determination in an effort to circumvent these problems by altering the current trends and behavior patterns that are creating them.

SOME BASIC TRENDS THAT ARE SHAPING EDUCATION'S FUTURE

One needs no crystal ball to read the future. One only needs to examine recent trends and future projections of them to get a reasonably clear idea of some of the critical issues that will besiege education in various parts of the world during the coming decade. Though the future is clouded with many uncertainties and unpredictable developments, it is still possible to approach it with our eyes open and our minds informed by past experience. Thus it will be useful at the start to examine briefly a few of these basic trends that are already shaping education's future.

The Rapid Growth of Human Learning Needs

We start with the broad view of education that equates it with learning, not simply schooling, and with the corollary view that all human beings have important learning needs, of many different kinds, which keep evolving throughout their lifetime, from earliest infancy onward.

Seen from this perspective, the most primordial fact pertinent to education in the present era is the explosive growth of human learning needs throughout the world. This results in part from the extraordinary increase in the number of learners in the world. But it is due even more to the vastly accelerated pace of economic, social, technological, political and other types of change going on throughout the world. These various changes generate many kinds of new learning needs that, in one way or another, touch the lives of entire populations, in both rich and poor nations.

It is impossible to measure these learning needs with caliper precision or even to classify them neatly, but this makes them no less real. The number of learners, on the other hand, can at least be counted, but it is no easy matter to sort them out according to their different individual characteristics and environments, and these have a major bearing on the nature of their particular learning needs.

The growth in the number of learners in the world in the second half of the 20th Century is truly mind-boggling, especially when viewed

against the earlier demographic history of mankind. Anthropologists and demographers now estimate that it took from 2 to 3 million years after the first appearance of humanlike creatures on this planet for mankind's population to reach the one billion mark (around 1800 A.D.). The second billion was added in 130 years (by 1930), and the third billion in only 30 years (by 1960). The total is now expected to top 6 billion by the end of this century.

The great bulk of this rapid growth is taking place in the less developed regions of the world. Their combined share of the total world population rose from 67% in 1950 to 73% in 1975 and will reach about 80% by 2000. (Table 1) But because their populations are younger than in the developed regions, their share of the world's total school age population is even larger. (Table 2) This means, of course, that the huge educational burdens resulting from this demographic growth are falling largely on the countries least able to bear them.

The more developed nations, by contrast, are moving rapidly toward population stabilization by the end of the century. Their post-war "baby-boom" petered out in the 1960s and by the late '70s fertility rates had plunged to (or below) the "replacement level". Meanwhile, the post-war bumper crop of babies has passed through the primary and secondary schools, leaving empty classrooms and teacher surpluses behind, and it will complete its passage through higher education in most countries by the mid-1980s, confronting the universities with what many fearfully call

Table 1: The Expanding World of Learners: 1950-2000
(millions)

	1950		1975		2000	
	No.	%	No.	%	No.	%
World Total	2,513	100	4,033	100	6,199	100
More Developed Regions	832	33.1	1,093	27.1	1,272	20.5
Less Developed Regions	1,681	66.9	2,940	72.9	4,927	79.5
Africa	219	8.7	406	10.1	828	13.4
East Asia	673	26.8	1,063	26.3	1,406	22.7
South Asia	706	28.1	1,255	31.1	2,206	35.5
Latin America	164	6.5	323	8.0	608	9.8
Oceania	13	.5	22	.5	30	.5
Europe & USSR	572	22.8	728	18.1	832	13.4
North America	166	6.6	236	5.9	289	4.7

Source: UN 1978 Assessment.

"enrolment stagnation". The number of births will rise again in the 1980s as the post-war babies produce their own babies, and this will create another wave of customers for the schools and colleges in due course; but this is expected to be a relatively short-lived blip on the long term demographic curve of the developed world.

Meanwhile most developing nations will continue to be besieged by powerful demographic pressures to further expand enrolments. Simply to maintain the enrolment ratio existing in 1975 for 6 to 11 year olds, Africa will have to increase enrolments by 107% by 2000, Latin America by 75%, and Asia by 63%. (The same figure for the more developed world is only 9%.)

Table 2: Trends in School Age Populations 1960-2000 (millions)

	1960	1980	2000
More Developed Regions			
Age 6-11	107.8	104.8	109.4
12-17	91.1	110.8	108.9
18-23	87.6	115.6	103.6
Total.....	286.5	331.2	321.9
Less Developed Regions			
Age 6-11	316.6	495.0	664.4
12-17	249.2	445.3	615.5
18-23	217.2	388.9	550.4
Total.....	783.0	1,329.2	1,830.3

Source: UNESCO, based on UN 1978 Assessment.

But to keep up the enrolment growth rates at each educational level that prevailed prior to 1975, Africa would have to expand enrolments (for all levels combined) by 111 million between 1975 and 2000, compared to 44 million actually added between 1950 and 1975. Latin America would have to increase total enrolments by 98 million between 1975 and 2000 compared to the 55 million added from 1950 to 1975. The required addition for Asia would be 212 million (1975 to 2000) compared to the previous 25 years' addition of 153 million.

The implications of these enrolment figures for teacher and classroom requirements and for education budgets are staggering. But even if these enormous enrolment increases were achieved, no developing region would yet have reached universal primary education by 2000, and the absolute number of out-of-school children and youths in the developing world, as well as the number of adult illiterates, would exceed the 1975 levels.

The above figures, based on UNESCO projections, are only rough approximations, but their general order of magnitude is undoubtedly correct. It should also be emphasized that they tell only part of the story--the formal education part. They take no account of the enormous requirements for various types of non-formal education that will also be growing rapidly, and for which existing supply provisions are even less adequate than for formal education.

The developed nations, despite their low population growth, will also experience sizeable increases in learning needs, especially

on the part of their older youths and adults, because of steady changes in living and working conditions. The infusion of new technologies, the changing character of jobs and job qualifications, increasing geographic and employment mobility, increased employment of women and improvements in their status, changing life-styles both at home and outside, the shortening work week allowing more leisure time, all these will generate vast new learning needs affecting the entire population.

The Tightening Economic Squeeze on Education

To cope with the enormous growth of learning needs will obviously require large increases in educational resources and a more efficient use of them. But here lies the blistering rub. As forecast in The World Educational Crisis in 1968, educational systems almost everywhere found themselves in the 1970s caught in a tightening financial squeeze between stiffening budget ceilings and rising costs. The problem was exacerbated by--but not created by--the worldwide recession and inflation of the '70s; it had been in the making well before the recession struck.

One side of the squeeze ties back to the preferential treatment enjoyed by education during the exuberant 1950s and 1960s, when education's share of total public expenditures and the Gross National Product climbed steadily in almost all countries. (Table 3) This trend was very helpful to educational expansion at the time but it obviously could not continue indefinitely without crippling all other important public services. The day of

Table 3: Public Expenditures on Education as a % of GNP 1960-1977

	1960	1965	1970	1975	1977
Developed Countries	4.0	5.1	5.6	6.0	6.0
Developing Countries	2.3	3.0	3.3	4.1	4.3

Source: UNESCO Yearbooks, 1980 and earlier.

reckoning finally arrived for many countries during the 1970s when education's percentage share flattened out and in some cases declined. In countries where this has not yet happened, it is very likely to in the 1980s. In short, the halcyon days of generous and relatively easily obtained annual increments to education budgets are over. Henceforth the annual "battle of the budget" will be much rougher, with stiffening competition from other sectors (not least of all in many countries, the military).

What happens to educational budget increments in various countries in the 1980s will depend heavily on two things: how their economic growth rate behaves, and what priority is given to education by the general public and political leaders. On both scores the outlook is not particularly bright in the majority of countries, both rich and poor. Economists are divided on whether the widespread slowdown in economic growth rates during the 1970s was merely cyclical or a more enduring phenomenon, but few if any in either camp are forecasting any dramatic increases

over the growth rates of the 1950s and 1960s. The World Bank felt compelled last year to revise downward its previous "high" and "low" projections of per capita GNP growth rates in the 1980s for various groups of countries. (See Table 4.)

With respect to priorities, the earlier public and governmental enthusiasm for education has evidently been diminishing in many countries in recent years. The voices of public criticism and disenchantment and of disgruntled taxpayers have grown louder. Financial authorities, hemmed in by increasing overall national budgetary constraints and besieged by increasing demands from other sectors, have taken to ruthlessly pruning education budget requests. These adverse trends are unlikely to be reversed in the 1980s.

The other side of the financial squeeze comes from the cost side--from the inherent tendency of educational expenditures per student to rise progressively (quite apart from inflation) because of the labor intensive character of education and the lack of productivity-increasing innovations. It is noteworthy that few of the record-breaking number of educational "innovations" reported in the 1970s seemed aimed at improving efficiency and reducing unit costs. Most in fact were loaded in just the opposite direction.

This upward pressure of costs will very likely intensify during the 1980s whenever the growth of enrolments slows down and powerful built-in cost escalators come into play--particularly those tied to hierarchical

Table 4

Growth of GNP per capita, 1960-90
(average annual percentage growth)

	1960/70	1970/80	Low Case 1980/85	Low Case 1985/90	High Case 1980/85	High Case 1985/90
Developing Countries						
Low Income	1.7	1.7	1.2	1.8	2.1	2.5
Middle Income	3.4	3.1	2.1	2.4	2.7	3.4
Industrialized Countries	3.9	2.4	2.5	2.5	2.8	3.5
Centrally Planned Economies	n.a.	3.8	3.3	3.3	3.3	3.3

Source: World Bank's World Development Report, 1980.

teacher salary structures that provide for automatic increases based on years of service and for large grade increases for higher teacher qualifications. As fewer young recruits are hired at the bottom and the existing teacher staff ages, instructional costs per student will move upward. In addition, with fewer students to share various overhead costs--administrative salaries, repairs and maintenance, supplies, utilities, etc.--these will also increase per student. The whole process will be further accelerated in the many countries where the bargaining power of teacher unions has become strong. All these cost increasing tendencies were sharply in evidence in developed countries during the 1970s as primary and secondary enrolments contracted and they are already showing up at the post-secondary level. It does not require a contraction of enrolments to set them loose, however; all it takes is a marked slowdown in the rate of expansion. Nothing short of radical educational surgery can stop these inexorable cost increases, whether in developed or developing countries.

The Deteriorating Employment Market

The late 1960s and early 1970s witnessed a wrenching transition in most economies throughout the world from an era of ubiquitous shortages of educated manpower to a new era of growing surpluses. Jobs that had earlier gone begging for qualified candidates were now largely filled and the economy was not creating new ones fast enough to match the greatly increased output of secondary and higher education. Sooner than most educators and man-

power forecasters had expected, the rapidly increasing output of secondary school and university graduates had caught up with the accumulated backlog of manpower deficits and begun to exceed the effective demand of the employment market. More and more graduates had difficulty finding the kinds of jobs they had set their hearts on and that their freshly minted diplomas would virtually have guaranteed only a few years earlier.

The resulting youth unemployment problem was also exacerbated by--but not created by--the stagflation conditions of the '70s. It was bound to develop eventually when the rapidly upward trending curve of educational output crossed the curve of new job openings. The problem was further exacerbated (a point often ignored) by the enlarged youth cohorts coming onto the labor market in the '70s and, in many developed countries especially, by the increasing proportion of women seeking employment.

By the same token, the overall youth unemployment problem will be somewhat alleviated in the 1980s in developed countries (though not in developing countries) by the declining size of the youth cohorts entering the labor market each year. It would be wishful thinking, however, in either developing or developed countries, to expect the boom employment conditions for young school and college graduates in the 1950s and 1960s to return in the foreseeable future. This is not to say that selective manpower shortages will not continue to arise. It is simply to say that a fundamental realignment of the demand-supply relationship has now taken place between

educational output and employment markets. We will elaborate this point later.

Changing Educational Structures and Persistent Inequalities

The rapid expansion of educational systems since 1950, whose enormity is suggested by the figures in Table 5, has wrought major changes in their structures, yet has failed to eradicate some serious disparities within them (though it has helped reduce certain of them).

In the developed countries, which already had universal primary schooling, the main effect of the expansion was to "flesh out" the educational "pyramid" at the secondary and especially the post-secondary levels. In the wake of World War II most European countries undertook to transform their narrow "elitist" systems into "mass" systems by multiplying their size. The United States and Canada and certain other developed countries that emerged from the war with semi-mass systems of secondary and higher education--much more diversified and flexible than the European systems--set about expanding them still further and broadening their access to adults as well as to youths.

The post-war evolution of the educational structures in most developing countries, contrary to initially expressed intentions, took a remarkably different path than that followed historically by today's developed countries. The latter countries built their educational pyramids from the bottom up. By the late 19th and early 20th Century most of them had virtually established universal

Table 5

Growth of Enrolments by Levels, 1950-1975

Region	Year	Number Enrolled (millions)			Index of Growth (1950=100)		
		1st Level	2nd Level	3rd Level	1st Level	2nd Level	3rd Level
Europe & USSR	1950	74.6	15.6	2.53	100	100	100
	1975	84.9	45.4	12.41	114	291	491
North America	1950	23.8	6.9	2.4	100	100	100
	1975	29.3	23.1	12.0	123	335	500
Africa	1950	8.5	0.75	0.07	100	100	100
	1975	44.8	8.50	0.88	527	1,133	1,257
Asia	1950	53.3	12.7	1.0	100	100	100
	1975	159.6	61.6	8.5	299	485	850
Latin America	1950	15.4	1.7	0.28	100	100	100
	1975	56.9	12.4	3.61	369	729	1,289

Source: UNESCO Yearbooks.

primary schooling but still had extremely small secondary and higher educational participation. These levels were gradually enlarged over the next half century and, after the war, much more rapidly. The 20 year expansion targets adopted by the ministers of education of Asia, Africa and Latin America at UNESCO's landmark regional conferences in the early 1960s envisaged a similar strategy of building from the bottom up. The goal was to complete universal primary education (UPE) within 20 years, meanwhile building a modest core of secondary and higher education that could be fleshed out later.

In fact, however, the opposite strategy was followed in most developing countries. Almost without exception they expanded enrolments at a much faster rate at the top and middle levels than at the base of the system. (See Table 5.) As a result, by the end of the 1970s the majority of them were not yet within striking distance of UPE, and at the present rate many will not make it by the end of the century. But they have already substantially overshot their secondary and especially their tertiary level expansion targets.

Today's educational structures in most developing countries, in addition to being top-heavy, are also very lop-sided geographically. In effect, they have <u>two</u> educational systems: an <u>urban system</u> that is already close to universal primary schooling in many instances (except for slum children) and has impressively high secondary and post-secondary enrolment ratios compared to 15 years ago, and a <u>rural system</u> typically composed of thinly spread (often incomplete) primary schools, with few

if any secondary schools and no higher education whatever above them. The practical effect of this dual system is that rural children, who often comprise 70 to 90 percent of all the nation's children, have a drastically smaller chance than their urban counterparts of entering and completing primary school, much less going on to secondary school or the university. Surprisingly, these urban/rural inequalities are even greater in a number of Latin American countries, despite their higher per capita incomes and comparatively smaller rural populations, than in many poorer countries of Asia and Africa.

These huge urban/rural educational disparities are part of a much broader imbalance between urban and rural economic and social development, which underlies the heavy concentration of extreme poverty in the rural areas of most developing countries. Helping to rectify these gross urban/rural inequalities and meeting the basic needs of the poverty-stricken rural majority is clearly the central challenge to educational policy in the 1980s in many developing countries.

Educational Planning, Bureaucracy and Politics

The rapid expansion of national education systems after 1950 created a compelling need for comprehensive and integrated educational planning, designed to keep these systems internally balanced and harmonized with expanding and changing educational needs and demands, with manpower requirements of the economy, and with available economic resources. The planning concepts and quantita-

tive methodologies that evolved in the 1960s and 1970s and that are now in widespread use have been helpful in some of these respects. But they are largely geared to an educational strategy of linear expansion and to aggregate national planning from the top down. Hence they are manifestly inadequate for achieving three presently urgent purposes: (a) guiding and implementing needed fundamental changes and innovations in inherited educational systems; (b) decentralizing the planning and management of these systems so as to adapt them to local conditions and to promote greater local involvement and support; and (c) creating and enlarging a wide diversity of nonformal education activities, many of which should be integral elements of various kinds of development programs stretching from agriculture to family planning. One of the urgent tasks for the 1980s, therefore, is to develop fresh approaches to educational planning that can serve these essential needs more effectively.

The great expansion of educational systems also inevitably increased their bureaucratization, which in turn led frequently to extreme centralization of decision-making and regulation, to rigidities, delays and inefficiencies in execution, and to stifling new ideas and initiatives at lower echelons and in individual schools and classrooms. One of the imperative requirements in the 1980s, therefore, is to remedy these bureaucratic excesses that are choking the whole system and failing to bring out the best in its participants.

Finally, the great expansion of education also brought it increasingly and inevitably

into the center of political life and controversy, contrary to the old credo that "education should be above politics". But with education having become the largest industry in most countries and the largest single user of public funds, it cannot escape from increasing political scrutiny, debate and intrusion. And with the whole issue of social inequalities, including educational inequalities, having now moved to the forefront of the political agenda throughout the world, and with students and teachers almost invariably turning up in the vanguard of major political protests and movements in more and more countries, it is evident that education and politics will become increasingly frequent bedfellows--even if uncomfortable ones--in the future. It is also predictable that the best laid plans of educational authorities and planners will often be derailed by unpredictable political and cultural collisions within nations.

The Changing Environment of International Cooperation

The post-war and post-independence years witnessed a proliferation of international educational cooperation beyond anything even dreamed of before. Dozens and dozens of new governmental, intergovernmental and non-governmental organizations sprung up and became involved in exchanges of students and scholars among countries of all sorts, in providing technical and material assistance to help emergent nations build their own educational capacity, and, underlying all this, endeavoring to create greater mutual understanding among all nations in a shrinking and

increasingly interdependent world filled with great promise on the one hand and incredible dangers on the other. Most who were involved in these new activities in those earlier times, on either end of the dialogue, look back on it now as perhaps the most exciting and rewarding period of their whole career. Though "foreign aid", as it was called, was popularly perceived as a "one-way" flow of help from "donors" in the North to "recipients" in the South, most educators who got caught up in the process quickly became convinced that it was a mutually beneficial exchange.

This remarkable upsurge, and the broader movement of which it was part, reached its high water mark around the mid-1960s. It has since been steadily ebbing, for a variety of familiar reasons. During the '70s, for example, the overall amount of "official development assistance"--measured in constant dollars--largely stagnated, and the relatively small share of it going to education tended to decline. A sizeable volume of cooperative educational activities has continued, but much of it in the now well-worn grooves that were freshly cut a decade or more ago. To be sure, some new trails have been blazed and new participants have joined the process charged with fresh enthusiasm. But overall, the captivating aura of enthusiasm, adventure, discovery and spontaneous friendship that permeated the earlier "movement" seems to have waned. This is much less true of voluntary agencies, many of which shifted their emphasis in the 1970s from short term "relief" efforts to more enduring "development" efforts. But most official bilateral and multilateral develop-

ment agencies, to be completely candid, have grown increasingly routinized and bureaucratized and in some cases increasingly politicized, to the detriment of their basic mission. To many of their aging staff members, originally fired with idealism, it has ceased to be a "movement" and become just another job, albeit an unusually interesting and often challenging one. The point should not be exaggerated, however, for these organizations are still doing very useful work; the question is rather how they can renew themselves and increase their effectiveness in the 1980s.

Along with numerous conflicts and upsetting changes in the world environment that have soured the atmosphere for cooperation, there have also been encouraging signs of progress. One of the most heartening of these is that many developing countries, as they have matured, have become increasingly self-reliant and more insistent on making their own development plans and decisions and on being less dependent on outsiders. Their officials are often heard to say in private these days, "Do not misunderstand; we still need help, but not the kind we have been getting." What they mean in part is that the quality of experts being sent to their countries now is not on the average as high as it once was, and in some cases below the calibre of their own people who are supposed to serve as "counterparts". But they also mean that the old notion of "foreign aid"--the one-way flow of help from North to South--has become increasingly obsolete and unacceptable. What is desired now is a new spirit of dignified negotiation between autonomous and mutually respected partners, based on the concept of

a reciprocal flow of benefits. This point of view is also widely shared today--if not always practiced as yet--by external assistance agencies. But everyone, on both ends, is learning new styles of cooperation and this will take time.

There is also a growing appreciation of the potentialities of horizontal development cooperation among developing countries. Their accumulated development experience now often makes it possible for them to learn many useful lessons from one another that are more relevant to their needs and circumstances than the lessons available in industrialized countries.

There can be little doubt that the needs and opportunities for fruitful international educational cooperation in the 1980s will be greater than ever. But in view of the many economic and political changes that have occurred on the world scene and the new crop of common critical issues now facing education around the world, these future needs and opportunities for cooperation will be quite different than earlier. This points up the urgent need to develop a fresh international consensus on some fresh priorities and approaches to educational cooperation for the 1980s. It also cautions against following a "business-as-usual" approach or an excessively political one that could destroy the spirit and effectiveness of the whole enterprise.

SIX CRITICAL ISSUES FACING HIGHER EDUCATION

The basic trends and developments outlined above have far-reaching future implications for all levels and types of education throughout the world. Against this broader context, we now narrow our focus to examine how these forces are likely to impinge on post-secondary education in particular--always bearing in mind that higher education is an integral part of a larger educational complex set in a dynamic socioeconomic milieu and therefore cannot be successfully diagnosed in a vacuum. Specifically we will examine six critical issues relating to: (1) growing learning needs and educational demands, (2) employment prospects for graduates, (3) costs and finance, (4) educational inequalities, (5) planning, management and governance, and (6) international cooperation.

Adjusting to the Changing Demand

It is customary to project the future demand for higher education in simple quantitative terms, based on the size of the upcoming "college age" population that will be emerging from secondary school. These numbers, however, and this definition of higher education's clientele, omit two important dimensions of the reality. First, they ignore the important learning needs and interests and the large latent demand of numerous potential "unconventional" students who have not customarily been served by most higher educational institutions. This group will merit

much greater attention in the 1980s, especially in developed countries where the in-flow of "traditional" full-time students from secondary school will be declining.

Second, what really counts in the end is not just the quantitative dimensions but the qualitative dimensions, judged not simply by traditional "quality standards" but by what is actually being taught and learned today and how well it fits the present and future needs of the particular students and society. These qualitative questions were often brushed aside during the earlier rush for quantitative expansion but they are now coming home to roost in ever-increasing number and will have to be faced up to in the 1980s.

Since the demand trends for higher education in the future will be very different as between developed and developing countries--due especially to differences in their demographic trends and their differing enrolment ratios--it will be useful to examine them separately.

The Outlook in Developed Countries

Because of the declining "college age" cohort, combined with a recent downward trend in the proportion of qualified secondary school graduates opting to move directly on to higher education, enrolments of "traditional" type students are expected to stabilize or decline in most developed countries during the 1980s.

This prospect of "stagnation", together with tightening budgets, diminishing public enthusiasm, and a softening employment market

for graduates, has created a deep malaise in many higher education communities--especially in universities and degree granting colleges that are likely to feel the greatest pinch. The malaise has been exacerbated by recent sharp cuts in programs, in the hiring of young instructors and in the promotion prospects for existing young faculty, all of which jeopardizes the future intellectual vitality and morale of these institutions.

But there is also a brighter side to this otherwise gloomy outlook. For one thing, with the pressures for expansion now abated, higher educational institutions--particularly universities--have a rare opportunity to catch up on some important unfinished business. They can now turn their attention and energies, for example, to scraping off useless old barnacles from the distant past; to reconsidering and clarifying their basic purposes and objectives and using these as criteria for critically evaluating their actual performance; to updating and adapting the curriculum to fit the changing needs of an increasingly diversified student body; to lifting sagging quality where needed; to experimenting with new and more cost-effective teaching and learning strategies; to rejuvenating and redirecting faculty research; and to abandoning old attitudes, habits, and red-tape that stand in the way of much needed changes and innovations. These are not only "good things" to do but essential things to do if universities are to remain a vital force in their society and to avoid becoming sociological museum pieces.

Universities and other higher institutions in developed countries also now have a rare

opportunity to reach out beyond their traditional students to serve the important learning needs and interests of many persons who have been neglected or excluded in the past--including, for example, women, members of lower socioeconomic and ethnic groups, and many older youths and adults who would like to resume their education, whether to earn a degree or simply to take selected courses of particular interest and value to them.

In order to serve this larger and more diversified array of learners, however, higher educational systems must become more diversified themselves. This is the sine qua non for moving further toward mass higher education--as the contrast between American and Western European experience demonstrates.

Historically the American higher education system has always been much more diversified and has served a much larger number and wider range of students than the old "elitist" systems of Europe, which adhered to uniform national "standards", were extremely competitive and selective, and served only a small and largely privileged fraction of the age group. Since World War II enrolments and enrolment ratios in both sets of systems have increased dramatically, but in different ways. In most Western European countries, the expansion centered primarily on universities, though in most countries non-university institutions were also expanded and, in some, new ones were created (e.g., the polytechnics in the UK, the ITUs in France, and the Fackhochschule in Germany).

In the United States, by contrast, the largest share of the total increase was in 4-

year and 2-year colleges having widely varying programs and standards, though university enrolments also expanded substantially.* Moreover, out of the total of 11.26 million students enrolled in all U.S. higher education in 1978 (compared to 3.22 million in 1960), 4.59 million were studying part-time. By becoming increasingly diversified in the post-war years, the U.S. higher education system succeeded in activating and catering to a tremendous latent market of interested learners who would have remained unserved by a less diversified system. It also goes far toward explaining why the participation rate of the U.S. population in post-secondary education is nearly double that of Western Europe.

The post-war experiences of Australia, Canada, New Zealand, Japan, and the Eastern European socialist countries have had much in common with the U.S. experience. They all evolved "mixed" systems of higher education, offering a variety of higher education options to different audiences, and most of them have also attracted many "unconventional" and part-time students. This same trend has lately

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*In the 10 years between 1967 and 1977, university enrolments in the U.S. grew very slowly, from 2.6 to 2.8 million; 4-year college enrolments rose more rapidly, from 2.8 to 4.5 million; but 2-year college enrolments zoomed from 1.5 million to 4.1 million, raising their share of total higher education enrolments from under 22 percent in 1967 to nearly 36 percent in 1977. These institutional differences make it very risky to compare higher education enrolment figures in the U.S. and Western Europe.

been gathering strength in Western Europe. Sweden--long the big exception to the general Western European pattern--adopted a higher education reform in the 1970s that abolished the traditional dichotomy between university and non-university institutions and strongly encouraged all of them to cater increasingly to "recurrent education" students.

Higher education in the Eastern European socialist countries and the USSR is also highly diversified, in two respects: first, they have a variety of specialized higher institutes apart from the universities and, second, a sizeable percentage of the total enrolments is made up of "unconventional" students (part-time evening and correspondence students) who can earn a regular degree. Although this percentage declined in the 1970s from the peaks reached in the 1960s, it is still sizeable.

The Soviet higher education system, though somewhat different than the others, has tended to set the pattern. As of 1977-78 there were 861 higher education institutions in the USSR, of which only 63 were universities, the rest being specialized institutes in the technical (engineering), pedagogical and other applied fields. Total higher education enrolments grew slowly in the 1970s, at an average of only 2% a year compared to 10% in the 1960s. Of the total of 5 million enrolled in 1977-78, just under 2.8 million (55%) were full time day students. Correspondence-extension students accounted for 32% and evening students for 13%. The latter two categories accounted for 38.5% of the 752,000 degrees granted in 1977/78.

The potential demand for recurrent and part-time higher education of various kinds can be expected to keep expanding in all developed countries as the result of new technologies and types of jobs, shifts in employment structures, improvements in the status of women, changes in social patterns and life styles, and increasing leisure time. Thus an important question for the 1980s, especially for Western European countries, is whether by further diversifying their higher education systems to serve a broader variety of learners they can resume their march toward mass education, which otherwise threatens to stall in its tracks well before the journey has been completed.

The Outlook for Developing Countries

The inescapable conclusion from the evidence cited earlier is that most developing countries will face severe problems and extremely difficult choices in coping with the growing demands for higher education in the 1980s and beyond. Powerful demographic and political pressures (the latter coming especially from middle and upper class urban families including many civil servants), will make it extremely difficult to put the brakes on further university expansion. Yet this is now a "must" in most developing countries if they are to deploy more public resources to expanding primary education in unserved areas and to developing other forms of much needed educational services, including a great variety of nonformal education essential to spurring social and economic development. Only in this way can these countries reduce the severe lopsidedness of their overall educational system

that is now seriously obstructing their balanced national development and perpetuating gross social inequalities that will increasingly threaten their political stability.

One of the central questions for the 1980s is what the universities in these countries can do and would be willing to do, consistent with their basic functions, to contribute effectively to the realization of the new development goals that evolved in the 1970s--especially the crucial goal of broadscale, integrated rural development aimed at improving the lot of the poor rural majority. Cynics would argue that these urban and Western-oriented academic institutions are hopelessly incapable by their very nature of contributing to the transformation of lagging rural areas and to helping the poor. The cynics may be partly right, but there is evidence to suggest that they are at least partly wrong.*

Most developing countries have concentrated their higher education development efforts on creating and expanding universities and other higher institutions modeled after foreign institutions. Thus they now have an even larger task than the developed countries of adapting these institutions to better fit their own needs, conditions and cultures and their very limited resources. They too need

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*See for example the case studies of a number of developing country universities that have struck out in useful new directions in: K.W. Thompson, et al., Higher Education and Social Change (Praeger) 1977, based on an ICED project.

to diversify their systems and to find appropriate ways to serve the important and constantly changing learning needs of somewhat older, unconventional students who are already playing significant roles in their government, economy and society--though it would obviously be premature at this stage to strive for "mass" higher education. Many countries have already taken significant steps toward such diversification, but it appears that few have yet gone nearly far enough.

Fading Employment Prospects for Graduates

The phenomenon of the "educated unemployed"--a term originating in India in the 1960s that also applied at the time to Egypt and the Philippines--spread like wildfire through both the developed and developing world in the early 1970s, creating deep personal anxieties and explosive political tensions.

Within the developed world the psychological and political repercussions were especially strong in Western European nations, for this was the first full scale confrontation between their newly "massified" secondary and higher education systems and the employment-generating capacity of their economy. The problem was made worse by the traditional rigid linkages (under the old elitist system) between specific educational credentials and specific job openings (especially in government and in the education system itself), and because student expectations were still wedded to these now obsolete relationships. In the United States and Canada the problem was worrisome but less explosive because credential linkages

were relatively less rigid and there was a long tradition among students of "taking the next best thing available," at least temporarily, if the job of their first choice was not available.

Different diagnoses and prescriptions came quickly from different quarters. Many placed the blame for unemployment squarely on the universities for producing "unemployable" graduates--the implicit (and dubious) premise being that if the students had been taught more "practical" knowledge and skills the employment market would have automatically absorbed them. The recommended solution that followed from this diagnosis was to salvage these "unemployables" by recycling them through special crash training programs of a "practical" nature, or by interning them in private enterprises (largely at public expense) to get some training and experience. A number of developed country governments have been trying this out, thus far with questionable results.

A quite different diagnosis, a favorite among manpower economists, was that the higher education system had reached excess production in relation to the economy's needs, hence the obvious solution was to throttle back educational production. Some of these same economists, back in the 1960s, had been staunch advocates of larger education budgets as "a good investment in economic growth," but now they were changing their tune.

Meanwhile the educators themselves, finding it hard to believe that any nation could really become "over-educated", or that landing

a first job was the primary purpose of education, were caught in the middle trying to keep their institutions afloat in a turbulent sea of mounting public criticism, declining confidence and tighter budgets.

The comparable problem was approached more methodically in the centrally planned and managed economies of Eastern Europe, where manpower planners are taken more seriously. The throttle was set back on the further growth of higher education enrolments (especially of extra-mural students), as early as the late '60s in most of these countries (as already noted for the USSR) as soon as surpluses began to threaten. And in line with their "full employment" policy, wherever surpluses did materialize in certain fields, graduates were retrained and redeployed to neighboring deficit fields or, failing this, were placed in available jobs (as retail clerks, for example) that were well below their qualifications but better than no job at all. (Practitioners of planning in Eastern Europe are the first to acknowledge that fine-tuning educational output to match projected manpower requirements, even in centrally planned socialist states, is far from an exact science; they envy the space scientists who can predict the course of a satellite with far greater confidence and accuracy.)

The growth of "educated unemployed" has been a much more disturbing problem in most developing countries because the employment market for graduates and their subsequent job mobility are much narrower, and because educational credentials are even more tightly tied to particular job levels and social status.

Understandably, therefore, unemployed university graduates hold out as long as they can afford to, waiting for a job to turn up that fits their "qualifications" lest they be tagged and disadvantaged for life by settling for some available but "inferior" position at the start of their career. But since the recruitment of graduates by the private sector is generally very limited and since the innumerable civil service and high level teaching posts that several years ago were going begging for qualified recruits are now filled to overflowing, it can often be a long and frustrating wait.

The concentration of attention by analysts and policymakers in the 1970s on the more immediate and politically volatile problem of graduate unemployment tended to obscure the impressive progress that nations throughout the world had made over the previous 20 years in strengthening their talent pools and in upgrading the whole population educationally--gains that can bring important long term benefits to the whole nation.

The point is vividly illustrated by the late Professor Fred Harbison's observation upon returning in the early 1960s from one of his early parachute missions to help introduce manpower planning in Africa (in this instance, Kenya and Tanzania). "It is simple to take inventory of the university graduates in these countries," Harbison explained, "you can practically count them on the fingers of two hands and in less than a week know them all by their first names." In the two succeeding decades the high level manpower pools in these countries have grown almost unbelievably,

through a combination of overseas study and the greatly enlarged output of their own new universities. The number of graduates in 1980 alone from the Universities of Nairobi and Dar-es-Salaam exceeded the total stock of graduates in these countries 20 years earlier.

The same sort of rapid educational upgrading has been taking place also in the developed countries, but under the aegis of mass education it has spanned the entire population. In the United States, for example, the median number of school years completed by people aged 25 years or older rose from 9.3 years in 1950 to 12.3 by 1975. In the same 25 years the percentage of young adults (25 to 29 years old) who had completed four or more years of higher education rose from 8.1 percent to 24.5 percent.

The concentration of publicity on unemployment among university graduates has also tended to obscure the fact that they are merely a small part--and the least disadvantaged part--of a much larger "youth unemployment" problem. Those with the highest credentials got the headlines, but those with the lowest qualifications or none at all bore the main brunt of the burden. The actual unemployment rates among new university and college graduates in most Western nations in the 1970s was generally much lower than among those with lesser educational credentials. The worst that happened to most graduates was that they finally had to take jobs, at least temporarily, below their "qualification level". The resulting "bumping" effect was to transfer the unemployment impact down to the next qualification level and so on downward, with everyone

moving down a notch (and every job moving up) until the fellow at the bottom with the least education was left really unemployed. The impact was (and still is) especially severe among disadvantaged ethnic groups (e.g., black and hispanic youths in U.S. cities).

This process of devaluation of credentials and upgrading of educational requirements for various types of jobs, all up and down the line, has been going on gradually for generations in all of today's more developed economies, whether capitalist or socialist. Over the past 75 years, for example, the educational qualifications for becoming an elementary school teacher, a college professor, a medical doctor, a licensed plumber or a machine tool operator have all risen dramatically in Europe and North America. This was an integral part of the national development process and one of the main reasons why labor productivity continued to rise, supporting increases in real wages and living standards. But the sudden acceleration of this normally gradual adjustment process in the early '70s--because of the increased influx of young people onto employment markets that were crippled by recession--made it a much more painful and disruptive experience. It was made especially traumatic by the gap between student expectations and the realities of a softened employment market, and by inflexibilities and obstacles in these markets that were prejudicial to the hiring of inexperienced young people. In France, for example, most private sector firms had traditionally recruited few if any university graduates (who almost invariably aspired to employment in government, education, and the learned professions).

But the underlying supply/demand imbalances that precipitated the famous "Events of May" in 1968 ultimately forced the private sector and the universities to come to terms, with the employers making their needs and preferences clearer and the universities broadening their curriculums. The new partnership, however, is still an uneasy one.

This education/employment adjustment process becomes increasingly important and widespread as a nation moves into mass secondary and higher education. It affects more and more people, often painfully, when the process suddenly gets accelerated. Yet there is no real substitute for this fundamental adjustment process, even in a centrally planned economy, as recent IIEP case studies in Eastern Europe demonstrate. And to complicate matters further, if the adjustment process is to succeed, many different parties--government planners and policymakers, the civil service, private employers, trade unions, and the education system itself--must all do their part. If any one of them remains rigid and inflexible the whole process gets fouled up and makes things worse. Understanding this process is little comfort, of course, to the young person without a job, but it is essential that it be understood by all parties concerned if they are to help make the transition from education to work somewhat easier for future students.

The employment outlook for graduates in the 1980s is impossible to predict with any assurance. Conditions will certainly vary from country to country and from year to year and field to field, depending on a combination of factors including the total number of new

entrants to the employment market, fluctuations in economic growth rates, technological changes, social and economic structural changes, and not least of all, the nature and quality of the preparation of graduates. One thing seems quite clear, however: few if any countries are likely again to experience the burgeoning demand for graduates that prevailed almost everywhere in the 1950s and 1960s--when war torn industrial nations were rebuilding their economies, making major technological strides, and rapidly expanding their educational systems; when newly independent nations were freshly building and staffing their new governmental, educational, economic and other infrastructures; and when economic growth rates in most of the world were running at unusually high levels.

An important favorable factor for developed countries will be the decline during the '80s, for demographic reasons, in the total number of new entrants to the labor market. Should this decline coincide with relatively strong economic recovery, the market for graduates, particularly in select "shortage" areas, could improve considerably over the 1970s. In any event, there are likely to be enough jobs to go around among higher education graduates, though they frequently will not be of the level their particular credentials have traditionally commanded. The people to worry about most are those with low educational qualifications who will be the ultimate victims of the "bumping" process in hard times.

One cannot be so sanguine, however, about developing country employment prospects. Almost all will continue to have an expanding

overall labor force exceeding the absorptive capacity of their economy--including an expanding supply of graduates (though its rate of expansion will no doubt be slowing down in most cases, due to budgetary tightness and other constraints on the expansion of higher education). Posts in the government and educational system, the two principal employers of university graduates in most lower income countries, are already saturated and thus far fewer new graduates will be recruited in the 1980s than in earlier decades. Moreover, the "brain drain" to industrialized countries in the 1980s is likely to be smaller than previously, causing a larger supply build up at home. If, in addition, national economic growth rates remain low employment opportunities for graduates will surely soften further. Undoubtedly there will be some notable exceptions, especially among middle income developing countries which, because of oil resources or other particularly favorable local economic conditions, are able to sustain above average growth rates. But the likelihood for most countries is that many new graduates will have to settle for something less than they had hoped, below the kind of job their qualifications would have easily brought them 10 or 20 years ago. While this will be disappointing, it will hardly be a calamity, for they will still be much better off by virtue of their education and certainly their country will be.

One bright spot on the horizon is the possibility that some positive steps will finally be taken in the 1980s toward the much debated New International Economic Order. If the terms of trade and the export markets for developing countries in the developed world

could be substantially improved, this would undoubtedly have an important stimulative effect on the demand for many types of educated manpower (as well as uneducated). Another bright spot for some countries, especially in Africa, is the possibility of replacing with well qualified locals the still sizeable number of expatriate experts and teachers still serving in the country.

The Growing Financial Squeeze

A further hard fact of life in the 1980s is that higher education systems virtually everywhere will be faced with an increasingly tight financial squeeze. It will certainly be most acute in the developing world, but it is already quite severe in the developed world. During the second half of the 1970s many higher education institutions in Europe and North America were forced to start making painful cuts in their budgets, programs and staffs. The combination of "stagflation", swollen national budgets and deficits, stiffening competition from other public services, mounting taxpayer revolts, unemployment among graduates, and waning public enthusiasm brought the "golden days" of the '50s and '60s to a jolting end. The squeeze will tighten further in the 1980s as enrolments flatten out and decline, pushing expenditures per student upward against stringent budget ceilings.

Higher education institutions in developing countries, unlike those in developed countries, will continue to be besieged by powerful pressures to expand, but their ability to do so without seriously eroding quality and without further distorting the whole

educational structure will be extremely restricted in most cases by overall national budgetary stringencies.

They cannot count on any quantum jump in external assistance to help them out of this bind. As noted earlier, overall external assistance, measured in constant values, largely stagnated in the 1970s and the share going to education--never more than a modest fraction--tended to decline. Moreover, several leading bilateral and multilateral assistance agencies have already indicated that they intend to give a high priority in the 1980s to assisting the expansion of primary and "basic" education and to various types of non-formal education directly tied to specific development objectives and programs. Though they are not turning their backs on higher education, their support at this level is likely to be much more limited and selective than previously.

In principle, the financial stress on higher education in both developing and developed countries could be considerably eased by cost-reducing adjustments and innovations and by curtailing less important expenditures, without serious damage to quality. For example, facilities could be more intensively utilized by going on a rotating year-round academic schedule and by using them in off hours for non-traditional students; in residential institutions two students might occupy lodgings presently used by only one. Numerous marginal items could be culled from the curriculum or offered less frequently if really important for some students. The number of small and expensive courses--the kind that proliferate

so easily but seldom disappear--could be reduced in number and brought into better pedagogical and economic balance with top quality larger courses, making a reduction of the faculty/student ratio possible. More emphasis could be placed on self-study, and in some cases on increasing unjustifiably light faculty teaching loads. (Some universities in developing countries have faculty/student ratios that would be the envy of some of the strongest universities in the developed world.)

The potential for economies in higher education--especially in universities--is intrinsically much greater than at the lower levels because expenditures per student are so much higher, particularly in developing countries. University costs per student in many developing countries, but especially in Africa, are many times higher than in elementary schools; thus there should be far more room for economies in higher education than in primary.* (See Table 6.)

Of course, reductions in overall average cost per student in a university can be and

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*The fact that "wastage" (in an engineering sense) is often shockingly high in primary education in developing countries should not be taken as evidence that the average cost per student could be reduced by reducing "drop outs" and "repeaters". On the contrary, one of the main causes of high wastage and low achievement is that expenditure per student is often far too low (too low, for example, to afford books and supplies for the children and to maintain buildings in decent shape).

Table 6. Public expenditures on elementary and higher education per student, 1976

	Higher (post-secondary) education	Elementary education	Ratio of higher to elementary education
Sub-Saharan Africa	3,819	38	100.5
South Asia	117	13	9.0
East Asia	471	54	8.7
Middle East & North Africa	3,106	181	17.2
Latin America & Caribbean	733	91	8.1
Industrialized	2,278	1,157	2.0
USSR & Eastern Europe	957	539	1.8

Note: Figures shown are averages (weighted by enrolment) of costs (in 1976 dollars) in the countries in each region for which data were available.

Source: World Bank, World Development Report, 1980, p. 46.

often have been achieved simply by redistributing overall student enrolments away from higher cost fields (e.g. medicine, science and technology) toward lower cost fields (e.g. liberal arts, journalism, business administration, etc.). While this may be appropriate and legitimate under certain conditions, particularly where the number of graduates from high cost areas is already clearly more than sufficient to meet any likely demand, this is not a real substitute for the kinds of productivity-increasing and cost-reducing changes needed within each sector of the university.

The kinds of adjustments and economies referred to earlier could do much to ease the financial woes of universities without serious sacrifice of quality, but they could not alone solve the whole problem. It is therefore also essential to look for possible ways to increase revenues. One possibility in countries where higher education is heavily subsidized by public funds is to require more affluent students and their families to pay a reasonable share of the real costs of their higher education, while at the same time establishing a generous scholarship and student loan program to avoid penalizing poorer students. In many countries, for example in Latin America, this would have the double advantage of (a) bringing increased revenues to the university and (b) reducing the present blatant inequity resulting from the poor subsidizing the high cost education of the rich through highly regressive tax structures. This, of course, would hardly be a popular move among middle and upper class families who have become accustomed to having their children's education heavily subsidized by the general public. But

then, practically any serious step in the direction of greater social equality is likely to step on some important toes. To do nothing about these blatant inequalities, however, could ultimately prove far more politically painful.

There would undoubtedly be less objection to charging reasonable fees to unconventional students such as working adults who already have an income and who in some instances would be reimbursed by their employer. This could also be an incentive to hard-pressed institutions to open their doors wider to unconventional students, as some are already doing (a mundane incentive perhaps, but for a lofty purpose).

A variety of other potential sources of new revenues for higher education to supplement what the central treasury can afford are worth exploration in each country, though care should be taken to choose only those whose administrative costs and difficulties do not outweigh the gains.

It would be naive, of course, to assume that any of the above possibilities for reducing costs and for supplementing revenues could be easily and quickly achieved. Most would almost certainly be resisted initially by faculty members or students and their families, or both. However, this simply underscores the urgency of getting started early because, like it or not, some truly heroic and drastic measures will be required in the 1980s to alleviate the growing financial crisis of higher education everywhere. The "salad days" are over.

Educational Inequalities

This is another hardy perennial that moved to the forefront of educational policy concerns and political controversy in the 1970s and promises to become an even more burning issue in the 1980s. It is not, of course, simply an educational issue for it cuts across the entire social, economic and political fabric of every nation. The social disparities that show up in educational systems are to no small extent a reflection of deeply imbedded inequalities in the whole society and economy. Nowhere, however, are these disparities more magnified than in the universities.

In the euphoric days of the 1950s and 1960s it was widely believed that the massive expansion of education was the best means available to any democratically-inclined nation to uproot old prejudices and socio-economic injustices. Education was declared internationally to be "the birthright of every child" and universal primary schooling in developing countries was seen as an effective way to give all children--regardless of sex or family background--an equal start in life. In the more developed countries, where universal primary schooling already existed, the mass expansion of secondary and higher education was expected to open up wider opportunities and create upward mobility for all young people on the basis of their ambition and demonstrated ability rather than the accident of birth.

By the early 1970s, however, it was clear everywhere that the great worldwide educational expansion was not producing the socio-

logical miracles expected of it. In every country, though in widely varying degree, there was still disturbing evidence of serious disparities and inequalities, within education itself as well as in the economy and society. The educational disparities were compounded at each successive level and hence were greatest in higher education.

This disappointing evidence transmuted the earlier optimism into skepticism, disillusion and even downright cynicism. Former believers in education as "The Great Equalizer" reversed their stand and now argue that social change must precede educational change, not the other way around. A minority of more radical academic critics with a propensity for conspiracy theories assert that "capitalist" (i.e. Western) educational systems and their imported versions in developing countries, far from being instruments of social change, are potent instruments of the ruling class for perpetuating their own power, by training the children of the exploited masses to be docile but productive workers.

Without wishing to become embroiled in this debate, we would offer three observations based on ICED's review of the available empirical evidence (which is admittedly spotty). First, the evidence leaves no doubt that widespread educational disparities--tied especially to sex, geographical location, and to socio-economic status--still exist in literally all countries and are most pronounced in the universities. Second, the same evidence suggests, however, that the various forces underlying these disparities are far too complex to be explained by any simple social theory of one-way cause and effect, conspiratorial

or otherwise. Third, the evidence does offer certain encouragement; progress has clearly been made in most countries over the past 20 years in reducing some of these educational disparities, though the progress has generally been quite modest and far below the high hopes and expectations of 20 years ago.

Sex Disparities

The proportion of girls in total higher educational enrolments has risen significantly in all regions except Africa. For developed countries as a whole it increased from 38% in 1965 to 46% in 1977, and in developing countries during the same period from 27% to 33%. Within each category, however, there are wide differences among individual countries. In the developed world, for example, women now constitute roughly half of total higher education enrolments in such countries as Canada, Sweden, the USSR and the United States, whereas they still represent little more than one-third in such countries as Japan, The Netherlands, the Federal Republic of Germany and the United Kingdom.

The differences are even greater among developing countries, ranging from less than 20% women in such countries as Bangladesh, Ivory Coast, Senegal, and the Cameroons to approximate parity between women and men (as of 1977) in such countries as Brazil, Burma, Panama and the Philippines.

Generally speaking, the lowest female to male ratios are found in countries where overall participation ratios in higher education are still quite low (e.g. Africa) and where deep-rooted religious and other cultural

factors still strongly resist equality of education and employment for girls and women (e.g. in many, though not all, Moslem societies). Conversely, where rapid increases in higher education have occurred, the percentage of women enrolled has generally increased disproportionately.* Rapid urbanization has also favored increased female enrolments, reflecting the faster breakdown of traditional cultural barriers in cities than in the countryside.

The point to be emphasized with regard to developing countries is that large sex disparities in higher education are usually rooted in substantial sex disparities in primary and especially secondary education. (See Table 7.) Until the latter disparities are sharply reduced, those in higher education are bound to remain larger. It is noteworthy that these statistical sex disparities have all but disappeared at the primary and secondary levels in many Latin American countries and that female representation in higher education is now approximately as high as the average for Europe.

The point to be stressed with regard to developed countries (though it is applicable also to developing countries) is that the overall sex ratios in higher education enrolments,

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*Brazil is a dramatic case in point. Between 1970 and 1974 total higher education enrolments more than doubled (from 430.473 to 954,674), and in the same period female participation increased by 10 percentage points (from 37.7% in 1970 to 47.4% in 1974).

Table 7: Percentage of Girls in Total Enrolments by Levels, 1965, 1977

	Primary		Secondary		Higher	
	1965	1977	1965	1977	1965	1977
Developed Countries	49	49	49	50	38	46
Developing Countries	41	43	32	37	27	33
Africa (excluding Arab States)	39	43	31	37	20	20
Asia (excluding Arab States)	41	41	35	37	26	30
Arab States	35	39	27	36	20	28
Latin America	49	49	48	49	33	43
Europe	49	49	47	49	34	43
Northern America	49	49	50	50	39	49

Source: UNESCO Yearbook 1980.

which in many instances are now close to parity, generally conceal sizeable sex disparities between different types of institutions and different fields of study. These in turn reflect traditional sex biases and discriminatory hiring practices in different professions (including the professoriate itself) and other fields of employment. It is common to find very low female enrolments in traditional "men's fields" such as the pure sciences and

mathematics, engineering and architecture, but disproportionately high female enrolments in the traditionally acceptable "women's fields" such as education, the arts and humanities, nursing and home economics. Why, after all, should a bright young woman study engineering when neither her government or the private sector in her country is interested in hiring female engineers?

These discriminatory hiring practices underwent considerable change during the 1970s in many developed countries (and in a number of developing countries as well), thanks in part to the upsurge of the "women's rights" movement and in some cases also to the adoption and more rigorous enforcement of anti-discrimination legislation. Such changes were especially dramatic in the United States and have already been reflected there in sharp increases in female university enrolments in such traditional "men's fields" as law, medicine, architecture and business administration. Indeed, American women have now even invaded the previously all-male sanctuaries of the national military academies.

If one had to guess what will happen in the 1980s, it would be that sex disparities in higher education will continue to narrow in most developed countries and--though generally less rapidly--in most developing countries as well. In developed countries the smaller age cohorts entering the employment market and (in many but not yet all cases) the liberalized hiring practices of governments, universities and private businesses, will favor the educational, economic and social advancement of able and motivated women. The same forces of liberalization will be at work--in varying

degrees of intensity--in many developing countries as well, but in many cases the continuing increase of new entrants into the labor force and the softening of the employment market for graduates will tend to deter the expansion of women's opportunities. Finally, it can be expected that wide differences among countries throughout the world in the role of women in higher education will continue to exist.

Geographic Disparities

In the highly industrialized Western nations the historic large disparities in access to higher education between urban and rural youth have greatly diminished since World War II and in some countries have virtually disappeared. Among the reasons are: the dramatic shrinkage of rural populations, improved rural incomes and living conditions, better transportation and communication, and the extension of higher education facilities into provincial areas. In a number of the less industrialized Western nations (particularly in Southern Europe), however, and in most Eastern European countries and the USSR, these geographic disparities, though smaller than they were 20 years ago, are still substantial. In these countries the rural population is still sizeable, rural schools--especially at the secondary level--still lag well behind urban schools, and accessible higher institutions do not exist in remote areas. In addition, the average educational, cultural and income level of rural parents is still relatively low compared to urban parents, and this tends to dampen the educational motivation and aspirations of many children.

But this situation is changing fairly rapidly. During the past ten years the USSR, for example, has largely achieved its long-standing goal of extending compulsory schooling through the lower secondary level into all rural areas. In the 1970s the USSR, in an effort to equalize access for different social groups, also introduced new "preparatory divisions" in higher institutions designed to give a year of special preparation to bright young workers and rural youths before entering the regular program. Efforts to strengthen rural secondary schools are also being made in virtually all Eastern and Southern European countries. Thus the prospects for getting to higher education should steadily improve for bright and motivated rural boys and girls over the next ten to twenty years.

The situation in most of the developing countries is dramatically different, and far worse. Their present dual educational systems, described earlier, deprive the large majority of rural youngsters from even getting a full primary education, much less a secondary or higher education. This condition is not confined to the lowest income countries of Africa and Asia; it is surprisingly widespread among the relatively higher income nations of Latin America where often half or more of the rural primary schools have only one or two or three grades and the children (officially recorded as "drop-outs") have nowhere to go from there.

Ironically, even the agricultural colleges in many developing countries admit comparatively few young people with rural backgrounds because their poor secondary preparation puts them at a serious competitive disadvantage

with mediocre urban secondary graduates who are not good enough to get into the regular university and choose the agricultural college as a last resort (often with no intention of entering a rural career).

There are also wide differences of educational access among different rural districts and villages within these countries. Those close to major cities and important market towns, or that are especially well endowed ecologically and are economically dynamic provide better educational chances than more remote and economically stagnant villages.

Another large and seriously disadvantaged group is the children in the spreading urban shanty-towns, many of whose families are recent migrants from rural areas.

It is obviously going to take at best many years of concerted effort and sizeable expenditures to bring these gross geographic educational disparities down to a tolerable level. But this cannot happen if higher education and the urban schools continue to get the lion's share of any additional educational resources. As the data in Table 6 show, the cost of adding one additional university student in most developing countries can mean not adding anywhere from 9 to 100 primary school pupils.

Socioeconomic Disparities

Disparities rooted in socioeconomic status are clearly the most fundamental and widespread ones in all education and in higher education especially, in both developing and

developed countries. These disparities underlie many of the sex and geographic disparities discussed above, and they are the most difficult ones to eradicate because they tend to be perpetuated from one generation to the next.

The available evidence shows that in virtually all nations today, irrespective of ideology or level of development, children of parents who are high on the educational, occupational and social scale have a far better statistical chance of getting into a "good" secondary school and from there into one of the "best" colleges or universities than equally bright children of ordinary workers or farmers. This pattern shows up consistently in all of the sociological studies of university students that have been conducted in Western and Eastern Europe and the USSR.

As might be expected, if only for arithmetic reasons, the sociological "skewness" of university student bodies has diminished somewhat in most developed countries as a result of the great increase in enrolments and participation rates. Nevertheless, to the surprise and disappointment of many educators, a marked skewness still exists.

Although recent sociological studies of student backgrounds have been far fewer in developing countries (except in Latin America) there is little doubt that an even greater skewness exists in most of their universities. A significant study in Latin America in the '70s, of conditions prevailing around 1970, compared the average number of years of schooling and the cumulative public educational expenditures per child for the children of

families in different income groups. The findings, summarized in Table 8, indicated that the average child in the low income group (comprising about 65% of the total population of the group of countries studied) completed an average of about 2-½ years of formal schooling at a total public cost of US$113, while the average child from the highest income group (about 5% of the total population) had completed 17 years of schooling at a public expense of US$4,753.

The skewness may well become even more accentuated in the future, particularly in countries (especially in Africa) that started off with little or no higher educational capacity 25 years ago and with a very low parental literacy rate. In such situations the first

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Table 8: Public Expenditures on Education, by Income Groups
A Composite Profile of Latin America
(Circa 1970)

Population by Income Level	% of Total Population	Average Years of Schooling	Cumulative Public Expenditure Per Pupil (1970 US$)
Low	65	2.47	113
Medium Low	20	8.64	596
Medium High	10	14.25	2,687
High	5	17.00	4,753

Source: Ratinoff & Jeria paper for Inter-American Development Bank.

generation of university students inevitably included a sizeable percentage of children of poorly educated and illiterate parents, but with more and more young people now having joined the "educated elite", their children will have a decided competitive advantage in the future over children of uneducated parents.

History clearly shows that educational disparities rooted in ubiquitous socioeconomic disparities cannot be overcome by education alone. This is not to say, however, that education cannot help, for it clearly has helped historically in a great many countries. Indeed education must be an essential component of any broad strategy for reducing major inequalities of any kind in any society. The point to emphasize is that education contributes most effectively to social change and justice when it is teamed up with other strong social, political and economic measures directed toward the same objective. However, anyone expecting such fundamental social changes to take place quickly in any society--whether by evolution or revolution--is courting disappointment. Such changes inevitably involve a lengthy process at best, for they require the remaking of many individual and institutional attitudes and behavior patterns. One can hope, however, that with the increased sensitivity to issues of inequality and human rights that emerged in the 1970s, the process will be accelerated in most countries in the 1980s.

Planning, Management and Governance

Historically universities were never really "planned" or "managed" in the contemporary sense; they did not have to be. They just

muddled along from year to year, carried by their own momentum and steered by their ingrained procedures and habits. Indeed, that was the beauty of universities; they provided a loose and congenial environment for a relatively unfettered intellectual life (though they were probably never as idyllic as today's nostalgic recollections would have it).

The past quarter century of rapid institutional growth has changed all that, however. Someone had to be in charge of shaping future plans, prodding needed changes, monitoring the whole process, putting out fires and trying to avert future ones, and not least of all, keeping the accounts and doing battle each year (or each quinquennium) to win a larger budget. The difficult question was: who was going to be in charge? University faculties, particularly in the European tradition, were not accustomed to having anyone in charge and were allergic to notions of "planning" and "management"--at least as applied to their own institutional life. Hence, when the big expansion got underway in the 1950s there was an almost total absence in most of these institutions of the kinds of mechanisms, procedures, and information flows essential to the rational planning and management of their own future and to adapting them to the changing conditions of society and the changing characteristics and learning needs of their expanding student body.

Far more complex problems of planning and management arose, however, when many new higher educational institutions began to proliferate, most of them heavily dependent on the public treasury. This required planning and managing not simply of individual institutions

but of a whole network of them. And who should be in charge of this network? What provisions should be made to insure a rational division of labor among the separate institutions, to insure a reasonable fit between their collective activities and the evolving needs of the society, and to insure the responsible and efficient use of increasingly larger funds provided by the taxpayers?

In these changed circumstances, there was obviously no escaping a substantially increased governmental hand in this enlarged process of planning and management--the more so since the universities themselves seemed conspicuously ill-equipped to handle it. But this stronger and broader role by government raised disturbing questions. Who would really govern higher education--politicians and bureaucrats or academics? Or some new breed of strong-handed university administrators and trustees? Or a melange of all three? Who would initiate important changes in plans and policies and in the allocation of resources? Who would be the prime movers of innovations aimed at keeping the universities from stultifying in their old tracks? How should universities and non-university institutions be related or coordinated? Should the system be centralized or decentralized, or some of each; and, if the latter, then what would be a viable division of functions and responsibilities at each level, and how would they be exercised?

ICED's recent comparative international studies of how different countries have tried to cope with these "system" problems reveal

a fascinating variety of approaches.* For example, while France, following the Events of May in 1968, plunged headlong toward converting the most highly centralized university system in Western Europe into a decentralized one, Sweden was moving in exactly the opposite direction. In the United Kingdom, the University Grants Committee continued to be a shield between the politicians and bureaucrats and the universities, but the rapid growth process obliged the UGC to lay on a much firmer hand than ever before and to become the system's central planner and manager (to the growing discomfort of vice chancellors of individual institutions). In the United States, individual state governments moved increasingly toward becoming the central planners of public higher education (private institutions striving to escape their grasp), and the federal government through its much enlarged but extremely uncoordinated research grants and contracts (coming from a variety of agencies) exerted an increasingly powerful and disruptive influence on the research programs of universities. Meanwhile, in the Eastern centrally-planned countries, detailed planning, decision-making and management of all higher education was concentrated in a central bureaucracy, creating what has come to be regarded by the faculty, administrators and

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*See, Twelve Systems of Higher Education: Six Decisive Issues, ICED, New York (1978); also separate published ICED studies on Australia, Canada, Federal Republic of Germany, France, Iran, Japan, Mexico, Poland, Sweden, Thailand, United Kingdom and the United States.

students of individual institutions as an increasingly insufferable degree of uniformity, rigidity, and inefficiency.

Developing countries face parallel but even more difficult dilemmas in the area of planning, management and governance. Although their systems of higher education are relatively smaller, they have been growing rapidly and the problems of transforming them from Western models to indigenous ones, better adapted to the local culture, development needs and resource limitations, pose very perplexing problems.

No country as yet seems to have found a fully satisfactory solution to the questions posed above, but they are looking. It is interesting, and encouraging, that the last 10 years have witnessed a far wider and richer dialogue between countries on this array of problems than ever before, with each candidly trying to learn something useful from the other's experiences. In the process much progress was made in the 1970s toward clarifying the nature of the problems, but the decade of the 1980s will have its hands full trying to reach effective and viable solutions that fit the traditions and circumstances of each country. One thing is very clear: until more satisfactory answers are found and implemented, higher education will be seriously handicapped in trying to cope with all of the other critical issues discussed in this paper.

International Cooperation and Understanding

A central question for the 1980s, as suggested earlier, is whether there can and will

be a resurgence of the earlier interest, zeal and innovativeness that will infuse new vitality into the whole field of international education cooperation--not simply bringing it back to where it was but leading it forward into new and more timely directions. For the world environment has now changed, education has changed, and the common issues confronting education everywhere have changed. Higher education, as it did earlier, must take the lead in blazing fresh trails, but to do so it needs a fresh set of guideposts. These guideposts cannot be imposed from without; the higher education community itself must participate in identifying them, in consultation with other interested parties.

By way of illustration, and without any pretense of offering a full agenda, we suggest the following five topics that appear to warrant attention. A sixth is referred to above under Planning, Management and Governance.

Foreign Student Flows

One aspect of international educational interchange that continued to grow by leaps and bounds in the 1970s was the flow of foreign students. The total number by UNESCO's count climbed from 479,000 in 1969 to 704,000 in 1975, and it has risen further since then. As will be seen from Table 9, the pattern of the student flows between different groups of countries remained fairly stable, while the total continued to increase.

About half the current "foreign students" are from developing countries, studying in developed countries. Their characteristics

Table 9: International Flow of Higher Education Students 1969 & 1975

	1969		1975	
	(000s)	%	(000s)	%
From LDCs to MDCs	220	46	351	50
From LDCs to LDCs	88	18	119	17
From MDCs to MDCs	121	25	184	26
From MDCs to LDCs	8	2	18	3
Unspecified	42	9	32	5
Total	479	100	704	100

Based on UNESCO data.

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are worth noting:

-- The great majority are self-sponsored (suggesting that they tend to come from relatively affluent families), and more than half are taking undergraduate studies--whereas the great majority of "sponsored" students, under governmental and international fellowships, are pursuing advanced studies.

-- Unsponsored students are generally far less carefully "programmed" than sponsored students to insure that they take home new knowledge and skills of greatest relevance and importance to their country's needs. They are also far more likely than sponsored students to become permanent "stay-aways".

-- The most popular fields of study among foreign students today (judging from U.S. experience) are engineering, business administration, and social studies. There has been a notable decline of interest in health, agriculture, and education--subjects of major current importance in most developing countries.

These facts pose several important questions: First, what policies should developed nations adopt in the 1980s toward the growing number of unsponsored foreign students--especially undergraduates from developing countries that now have substantial higher education capacity of their own? Should they continue to subsidize them the same as domestic students? What about unsponsored foreign students from other developed nations? Some Western European countries are currently debating these questions.

Second, should higher educational institutions in developed countries simply provide foreign students with the same academic fare as their domestic students, or should they make a greater effort to provide them with tailored programs more directly relevant to the conditions and needs of their own countries?

Third, should the traditional emphasis of aid programs on bringing students from developing countries for studies in Europe or North America now be modified to give greater encouragement to studying instead at appropriate institutions in the developing world, particularly strong specialized regional institutes that supplement the offerings of their home country's higher institutions?

Fourth, what more might developing country governments and universities do to insure that those sent abroad for advanced study will bring home the most critically needed types of skills and knowledge for the further development of their country's institutions, economy and society? And what might they do to encourage unsponsored "stay-aways" possessing such skills to return home?

Implementing New Development Goals

Universities in developing countries are often accused of being sanctuaries for the elite and of paying too little attention to the basic development needs of their own country. They will have abundant opportunity to disprove this charge in the 1980s by seriously addressing some of the new development goals and priorities that emerged in the 1970s and whose implementation will require creative new approaches. Higher educational institutions in the industrialized countries, if invited to do so, will also have a unique opportunity to cooperate with developing nations in pioneering in new directions. The first question is: to what extent are both sets of institutions willing and able to take on these new challenges? The second is: how might they go about it?

Take specifically the vitally important and ambitious goal that was so widely discussed in the 1970s--the goal of accelerating the development of the long neglected rural areas and of meeting the "basic needs" of the rural poor, who frequently constitute a sizeable majority of the nation's whole population. The conventional sector-by-sector, top-down

approach of the past has not worked. There is today a growing consensus that a much more integrated and community-based approach is necessary, combining such essentials as agriculture, small industry, roads and water, health and nutrition, family planning, and appropriate educational elements to undergird all of these. It cannot be simply a random assortment of separate interventions by specialized national or external agencies as in the past; it must be a coherent strategy imbued with the spirit of a genuine "movement" in which all interested parties participate together, not least of all the village people and organizations themselves. To a considerable extent it is going to have to be a process of discovery and learning (and of unlearning old doctrines, attitudes and practices that stand in the way of progress).

In what specific ways might higher educational institutions, in both developing and developed countries, fit into this needed new approach, this process of discovery, and make signal contributions to its success? What might they do, for example, to help create new low-cost rural primary health care systems, in contrast to expanding modern urban medical schools and hospitals that are actually serving but a small fraction of the total population? How might they help increase the productivity and income of small farmers, in contrast to staffing extension services that promote the use of sophisticated new technologies and inputs which are mainly feasible and beneficial only for larger commercial farmers? What might they do to help spread relevant and effective elementary education among the masses of rural children now without it, and

to spread nonformal education activities for youths and adults which, combined with other essential elements, could support many forms of social and economic advancement and more employment opportunities for rural people? How might they help government agencies and voluntary organizations to apply a more flexible, decentralized, integrated, and community-based approach to the all-around development of specific rural areas?

Some academic traditionalists might respond that it is not the business of universities to concern themselves with such "practical" matters, that their proper mission is to discover and impart new knowledge, to develop the human intellect in higher forms, and to serve not as the "doers" but as the critics of society. Those who have charged universities with being effete ivory towers would probably respond that they are only interested in spinning theories about the earthy problems of the common people, not in doing anything about them; they prefer to contemplate their own disciplinary navels.

Both these responses, however, evade the real issue, which is that universities and other higher educational institutions in developing countries will be increasingly pressed in the 1980s to justify the heavy public subsidies they are receiving by demonstrating more clearly than ever before their relevance and importance to national development, not simply by words but by practical deeds. And the universities and other higher institutions in developed countries, that did so much in earlier years to help create these developing country institutions and to mould them in

their own image, now have an important opportunity and obligation to help them in any possible way to adapt themselves more effectively to their own country's needs and culture.

This is not to ignore that a good number of higher institutions in developing countries have already taken significant steps in this direction.* Nor is it to suggest that they should cut their international intellectual ties and become purely inward-looking parochial institutions. It is simply to emphasize two things; first that tackling directly some of the knotty problems on these new frontiers of development can be more intellectually stimulating and rewarding, whatever one's academic field may be, than simply "keeping up" with learned articles and research reports in foreign journals; and second, that unless this process of indigenization and of fashioning closer linkages to concrete national development needs is accelerated, universities in developing countries are likely to find themselves in deep trouble in the 1980s. Their pleas for more money simply to do more of the same, only better, may fall on deaf ears in the face of increasingly strained national budgets and of the stark reality that millions of children, especially in rural areas, are still not getting even a primary education.

This, incidentally, is one specific area where a valuable reverse flow of knowledge and

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*See for example the case studies in K.W. Thompson, et al., Higher Education and Social Change, Praeger, 1977, based on an ICED research project.

lessons of experience from developing to developed countries could usefully take place in the 1980s. Though the OECD countries are popularly classified as industrialized, together they contain some 50 million rural residents, many of whom are in great need of appropriate types of education--especially nonformal--in conjunction with other measures to improve their productivity and incomes and their quality of life. Ironically, the academics and others in these "developed" countries who did useful pioneer work in these matters during the 1970s focussed their attention exclusively on developing country situations, ignoring somewhat comparable needs in their own backyards. Meanwhile, many significant lessons recently generated by various innovative rural programs in different developing countries could well have relevance to the unfinished business of rural development in these more economically advanced countries. It would be refreshing to witness in the 1980s a new South to North flow of technical assistance experts--from programs such as BRAC or SAVAR in Bangladesh, Sarvodaya in Sri Lanka, or several of the promising integrated rural development efforts in Latin America--to lend a hand to the improvement of rural life in the so-called "donor" countries.

Building Scientific and Technical Capacities

Much emphasis was given in the 1970s to the need for "appropriate technologies", and more recently spokesmen for numerous developing countries in international forums have voiced a strong desire for assistance to build up their own creative scientific and technological capabilities for solving their own problems, in such spheres as agriculture,

industry, employment, health, energy, natural resources and the environment. The reaction on the part of the international community and numerous industrialized nations to this expressed desire by developing nations to become more self-reliant--to create their own appropriate technologies and reduce their dependency on stronger nations--has been generally positive. But to translate this general idea into practical actions two initial questions must first be answered.

First, what precisely is meant by "strengthening the scientific and technological capabilities" of a developing country for devising appropriate solutions to its own special needs and conditions? Second, what specifically is required for achieving this, and how can industrialized countries--and their higher educational institutions in particular--help to meet these requirements?

Surely the answer is not simply to accelerate the transfer of advanced industrial and other technologies from developed to developing countries, for this would merely exacerbate the problems of misfit, dependency and the socioeconomic distortions resulting from "inappropriate" technologies. Nor can the answer simply be for developed country universities and other higher institutions to redouble their efforts to help strengthen the scientific and technical faculties of developing countries' institutions through conventional exchange programs. This approach, though undoubtedly useful up to a point, would have two drawbacks. First, it could further reinforce the Western character of developing country higher institutions at a time when they need to strengthen their indigenous

character. Second, it could result in further concentrating their scientific and technical attention on sophisticated technologies applicable only to the most modern sector of their economy, to the neglect of developing truly "appropriate" technologies for improving the far larger "informal" and "traditional" sectors to which the great majority of the population is presently tied.

These considerations suggest a third key question, directed specifically at universities and other higher institutions in developed countries. To what extent can they actually muster from their ranks a sizeable cadre of creative scientific and technical personnel who, in addition to being professionally competent in their particular field, are capable of setting aside their own cultural biases and economic and technical preconceptions, and of working hand in hand with their counterparts in developing countries toward finding appropriate solutions to important problems and opportunities within the realistic economic and cultural context of the developing countries themselves?

There is good reason to believe that such people exist and would be interested, though their numbers are limited. But then the question becomes, how to get moving in this new direction. It will obviously require getting out of some old organizational ruts and blazing some new trails. But this has happened before and could again--if there is a strong enough desire and will on both ends of the line to do so. But again it requires a process of discovery and learning. To assume that the old routines on a larger scale will do the trick is to misunderstand the nature of the need.

The Gap in Intercultural Understanding

Another important gap that merits attention in the 1980s relates to foreign language and area studies, which are a crucial foundation for mutual understanding among nations in this increasingly inter-dependent world.

This need was urgently felt in the wake of World War II and especially with the emergence of many newly independent nations. It was particularly keenly felt in the United States, which suddenly found itself thrust into a position of world leadership for which it was seriously ill-equipped in terms of knowledge and understanding of other countries and cultures. Most European nations were somewhat better off; they at least knew a good deal about their neighbors and in some cases about their former colonies. Yet obviously they, too, were going to have to broaden and deepen their knowledge of other parts of the world and keep up-to-date with rapidly changing conditions. The same need was acutely felt, of course, by many of the newly independent nations whose future depended heavily on acquiring a better understanding of the big and complex family of nations they had just joined and on being able to communicate and cooperate with its other members.

This widely recognized need fueled a vigorous movement in the schools and universities of various countries in the 1950s and 1960s toward broadening and strengthening the study of foreign cultures and languages, not simply by a limited group of specialists but by a sizeable segment of the population that would be engaged in a wide range of activities. In the United States almost all universities--at first with the support of private foundations

and later with government grants--created "foreign area study centers" focusing on various major countries and regions with a view to developing a new body of national expertise on different parts of the world. At the same time, there was a nationwide spurt of interest in the schools and colleges in the study of foreign languages and cultures as part of general education.

During the 1970s this keen interest waned as attention shifted to other matters, particularly domestic problems. Yet the need, if anything, is now growing in importance. Hence, a key task for the 1980s is to reinvigorate the study of foreign languages and cultures in schools, colleges and universities the world over. Curiously, this has been an important gap in the past pattern of international educational cooperation. One result is that there is no clear picture today of what the school systems and universities in various countries are now doing in this field, much less an adequate assessment of what they should do in the future. But if the United States is any example, they clearly are not doing enough. United States schools, colleges and universities were actually doing much more in the 1960s in the whole field of foreign language and area studies than they are doing today. This became abundantly evident when a recent presidential commission, headed by ICED's chairman, James A. Perkins, took careful stock of the situation and found urgent cause for concern. The commission recommended a series of actions by schools, colleges, and the universities, by the state and federal governments, and by the private sector to restore vigor to this area. It remains to be seen what will happen, but the prospects are

certainly better now than before the commission went to work.

Another disturbing clue comes from the USSR, which has done an outstanding job of training specialists in specific foreign countries and their languages, but which is reported to have dropped in the late 1970s its general foreign language requirement for all secondary school graduates applying for admission to higher education.

All countries today need to take stock of their own needs in this respect and whether their educational system is doing enough to meet them. Countries that discover such deficiencies (and most probably will) can certainly remedy them more effectively by working together rather than going it alone. And their universities are in an especially good position to lead the way into this important area of international cooperation in the 1980s.

Future Modes and Mechanisms of Cooperation

It is evident from all that has been said that the times call for considerable reorientation of objectives and some fresh approaches to international cooperation in higher education and in all areas of education during the 1980s and beyond. World conditions and the educational problems and opportunities to which international cooperation should now be addressed are markedly different than two or three decades ago when most of the assorted organizations involved in such cooperation were still in the prime of their youth.

These changes of direction, emphasis and style in international educational cooperation

will require considerable changes in the organizations and procedures through which such cooperation is carried out. These organizations are of many kinds, ranging from very small to large scale, from voluntary groups to official national and multinational agencies, and from single purpose to multipurpose interests and activities. There is undoubtedly room and need for virtually all of them (and perhaps even some new ones), for the needs and opportunities are highly diverse and each has certain things it can do best and each has its limitations.

Most of these organizations modified their programs and styles over the years as they acquired more experience and saw new challenges. Many have also changed in the sense of having grown prematurely old, becoming less flexible and adventuresome, more bureaucratized and more concerned at times with their own survival than with helping those they were created to help. A few have also become unduly involved in political conflicts among their members, thereby weakening not only their technical competence but their essential credibility for impartiality.

All of the various changes described in this paper--in education and its environment and in the critical problems education now faces, and in the different organizations devoted to cooperation--point to the importance at this time of making a fresh and systematic inventory: first, of the major opportunities and tasks that lie ahead for international educational cooperation in the 1980s and beyond, and second, of the particular capabilities of the various existing organizations (both independent and governmental) for dealing with

them. Such a stock-taking could serve several useful purposes, particularly if carried out informally with the participation and cooperation of all the main parties concerned, without threat to the prerogatives, autonomy or "jurisdiction" of any of them. It could provide a broad perspective view of the whole, against which each organization could re-examine more clearly its own particular capabilities, functions and future opportunities (as well as its own limitations and shortcomings). It would help clarify the natural division of labor among these organizations and the opportunities for strengthened cooperation among them in the future. Not least important, it would help identify important gaps--such as those suggested above--that are not presently being adequately addressed, and help promote a combined search for the best ways to fill them.

Postscript

This paper has attempted to give an abbreviated account of important findings emerging from ICED's reassessment of the world educational crisis in both developed and developing countries in the 1980s, and probably well beyond then. The basic trends reviewed and the six specific issues examined with particular reference to higher education certainly do not exhaust the list, but they suffice to demonstrate that some formidable challenges lie ahead for all types of education in all countries and for international cooperation in meeting them.

Our emphasis here has been on diagnosis, not prescription, in the belief that each nation is going to have to work out its own most

feasible and appropriate solutions to fit its own particular socioeconomic circumstances, its own values and preferences, goals and priorities. The most that any outside observer or organization can properly do is to help nations to see their problems and opportunities more clearly and to suggest possible options for them to consider in their search for solutions.

It would be surprising and more than a little disappointing if the various readers of this paper all agreed with all the statements made--surprising, because most of the readers (happily) are people who "think differently"; disappointing, because the prime purpose of the paper has been to provoke critical reactions and suggestions useful to writing the final report. Frank comments from readers everywhere will therefore be much appreciated.

Finally, a few frustrated readers may complain that, having laid out all these formidable future problems and issues, the author should have gone on to reveal his own honest judgement of what the realistic chances are of solving them. To this legitimate point I can only respond as follows. A perennial pessimist would undoubtedly say, "The whole situation is obviously hopeless and impossible of solution; things are bound to get steadily worse." But a born optimist--which anyone clearly would have to be to take the trouble to write this paper--would have a more cautious answer. He would concede that the world is still in the grip of a very serious educational crisis (whether called by this or any other name one may prefer), and that this crisis, even at best, will stretch far into

the future, for there are no quick and simple "fixes". But he would also observe that crises have a way of shaking people and institutions out of their comfortable orthodoxies and summoning forth their more radical propensities and creative energies. He would also recall that the impressive and unprecedented worldwide educational accomplishments of the past extraordinary 30 years, with all their flaws and misfires, would have been deemed "impossible" by most hard-headed analysts back in the early '50s. This said, he would perhaps close by saying, "Let's wait and see and hope for the best, always bearing in mind that human beings are quite incredible and unpredictable creatures."

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